

REMARKS

In response to the Final Office Action mailed March 27, 2006, and pursuant to a Request for Continued Examination (RCE) filed herewith, Applicants respectfully request reconsideration. To further the prosecution of this application, each of the issues raised in the Office Action is addressed herein.

Claims 1-20, 22-37, 39-64, 66-98 and 100-117 are pending in this application, of which claims 1, 15, 28, 36, 64, 70, 78, 80, 98, 104 and 112 are independent claims. In this response, Applicants have amended claims 64, 70, 78, 98, 104, and 112 solely to accept subject matter deemed allowable by the Examiner, and not to overcome any prior art. No new matter is added. The application as now presented is believed to be in allowable condition.

A. Title

On page 2, the Office Action alleges that the title of the invention is not descriptive. Applicants respectfully disagree and believe that the present title of the application appropriately describes, in a general manner, the subject matter disclosed in the specification and presently claimed. Applicants have not adopted the Examiner's suggested title of "Apparatus for Generating a Desired Spectrum of Light, and Method," as at least independent claim 15 does not recite "desired spectrum." Applicants believe that the present title more generally encompasses the various recitations in each of the independent claims and the claims depending therefrom.

B. Allowed Claims/Allowable Subject Matter

Applicants wish to thank the Examiner for allowing claims 15-20, 22-43, and 114-117 (including independent claims 15, 28 and 36).

In addition, the Examiner indicated that claims 14, 64, 70, 78, 98, 104 and 112 would be allowable if rewritten in independent form so as to include all of the limitations of the base claim and any intervening claims. Accordingly, while not acceding to the propriety of any rejections herein, but primarily to accelerate prosecution of the patent application, Applicants have rewritten claims 64, 70, 78, 98, 104 and 112 in independent form to accept subject matter deemed allowable by the Examiner. In amending claims 70 and 104, Applicants believe it is

unnecessary to include the subject matter of intervening claim 69 in claim 70, and likewise it is unnecessary to include the subject matter of intervening claim 103 in claim 104, as the range limitations recited in claims 70 and 104 are smaller than those indicated in claims 69 and 103.

C. Comments on Examiner's Statement of Reasons for Allowance

In numbered paragraph 29 beginning on page 19 of the Final Office Action, the Examiner provides a statement of reasons for allowance.

While Applicants agree that the prior art does not disclose limitations indicated in the Examiner's statement of reasons for allowance, Applicants respectfully note that the specific limitations indicated by the Examiner do not necessarily correspond verbatim to the features recited in each of the allowed claims. Applicants wish to point out that each of the allowed claims distinguishes over the prior art based on the particular limitations recited in the claims, and is patentable on its own merits (in some cases, perhaps, for reasons other than those indicated in the Examiner's statement of reasons for allowance).

D. Claim Rejections under 35 U.S.C. §102

Claims 1-4, 8, 9, 13, 44-62, 66-68, 71, 74-76, 79 and 80 (including independent claims 1 and 80) were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Havel (U.S. Patent No. 4,810,937). Applicants respectfully traverse these rejections.

Independent claim 1 is directed to an apparatus comprising a plurality of light-emitting devices including at least one first light-emitting device configured to emit first radiation having a first spectrum and at least one second light-emitting device configured to emit second radiation having a second spectrum different than the first spectrum. The apparatus also comprises a controller configured to control the plurality of light-emitting devices to produce composite radiation having at least one resulting spectrum that simulates a desired spectrum corresponding to sample radiation generated by a predetermined light source, and *at least one sensor configured to measure at least one of the composite radiation produced by the apparatus and the sample radiation generated by the predetermined light source and provide at least one corresponding measurement signal to the controller.*

Independent claim 80 is directed to a method, comprising acts of: A) emitting first radiation having a first spectrum and second radiation having a second spectrum different than the first spectrum; B) controlling at least one of a first intensity of the first radiation and a second intensity of the second radiation to produce composite radiation having at least one resulting spectrum that simulates a desired spectrum corresponding to sample radiation generated by a predetermined light source; and C) *measuring at least one of the composite radiation and the sample radiation generated by the predetermined light source.*

It is particularly noteworthy that nowhere in the Office Action does the Examiner address the italicized limitations noted above, namely, the at least one sensor recited in claim 1, and the act C) of measuring recited in claim 80. In fact, the Office Action is completely silent in this regard, and fails to point to any teaching in the cited Havel reference that discloses or suggests these limitations. For at least this reason, the Office Action is improper as failing to address each limitation of each independent claim.

In any case, Havel fails to disclose or suggest *at least one sensor configured to measure at least one of the composite radiation produced by the apparatus and the sample radiation generated by the predetermined light source and provide at least one corresponding measurement signal to the controller*, as recited in claim 1, and *measuring at least one of the composite radiation and the sample radiation generated by the predetermined light source*, as recited in claim 80. First, there is no teaching or suggestion in Havel regarding any measurement of sample radiation generated by a predetermined light source; rather, Havel's disclosure is limited to measuring light output in connection with Havel's device itself. Second, it is clearly impossible in Havel to measure "composite radiation produced by the apparatus;" in fact, Havel specifically teaches away from any such ability.

More specifically, Havel is directed to a multicolor optical device including multiple different color light sources, wherein each light source is paired with one corresponding light sensor (Abstract). A first portion of the light generated by each light source is blended to obtain a composite light signal of a variable color (Id.). A second portion of the light generated by each light source is directed onto a corresponding light sensor. Havel specifically discloses that the light sensors are completely isolated from each other; stated differently, each light sensor in Havel receives light from only one of the light sources that contributes to the composite

radiation. Havel explains that, in order to maintain a given light sensor in dark when its corresponding light source is extinguished, in one embodiment an opaque complete hermetic seal is made between a given light sources and its corresponding light sensor (Havel Fig. 5; col. 5, lines 31-36).

In another implementation, Havel illustrates an exemplary structure in Fig. 6, in which three opaque insulating walls 33a, 33b and 33c define three chambers 34a, 34b and 34c for the respective light sensors 36a, 36b and 36c. In each chamber, a given light sensor is completely surrounded by the opaque walls (col. 5, lines 62-66). Given such an arrangement, it is clearly *impossible* for any of the light sensors in Havel to measure composite radiation (i.e., light output from more than one light source). Instead, the structure of Havel's device is specifically designed such that a given light sensor is only capable of measuring light from one, and only one, light source.

In contrast to Havel, claim 1 recites at least one sensor configured to measure at least one of the composite radiation produced by the apparatus and the sample radiation generated by the predetermined light source, and claim 80 recites measuring at least one of the composite radiation and the sample radiation generated by the predetermined light source. For at least the foregoing reasons, claims 1 and 80 patentably distinguish over Havel and are in condition for allowance. Therefore, the rejections of claims 1 and 80 as being allegedly anticipated by Havel should be withdrawn.

Claims 2-14, 44-63, 66-69, 71-77, 79, 81-97, 100-103, 105-111 and 113 depend from one of claims 1 and 80 and are allowable based at least upon their dependency.

Applicants also wish to again address the Examiner's comments in paragraph 6 beginning on page 9 of the Office Action, regarding the alleged lack of patentable weight in the phrase "simulates a desired spectrum corresponding to sample radiation generated by a predetermined light source," as recited in claim 1, for example. More specifically, the Examiner contends that

any combination of light sources would inherently produced [sic] a composite spectrum that would correspond to at least one of all the known light sources, with such composite spectrum being predetermined by the specific combination of light sources used.

Applicants traverse the Examiner's assertion of inherency regarding the phrase in question indicated above. More generally, Applicants specifically traverse any rejection in the Office Action in which the Examiner's basis for rejection relies on the concept of inherency.

As set forth in MPEP §2112, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic (citing *In re Rijckaert*, 9 F.3d 1531, 1534, Fed. Cir. 1993) (emphasis original). Rather, MPEP §2112 states that "to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities" (citing *In re Robertson*, 169 F.3d 743, 745, Fed Cir. 1999). "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art" (citing *Ex parte Levy*, 17 USPQ2d 1461, 1464, Bd. Pat. App. & Inter. 1990) (emphasis original).

The Examiner alleges that "any combination of light sources would inherently produce a composite spectrum that would correspond to at least one of all known light sources." Applicants disagree, and furthermore point out that the Examiner's statement significantly differs from what is actually recited in Applicants' claim 1. Applicants recite a *controller ... to produce composite radiation having at least one resulting spectrum that simulates a desired spectrum corresponding to sample radiation generated by a predetermined light source*. Thus, "any" combination of light sources does not produce composite radiation that simulates a desired spectrum. Further, the desired spectrum is one generated by a predetermined light source, and not "at least one of all known light sources", as stated by the Examiner. The Examiner has taken a broad generic statement regarding combinations of lights and erroneously applied it to the specific features recited in the claims.

More generally, the Examiner has not provided a sound legal basis in fact, or sound technical reasoning, to reasonably support any determination that the allegedly "inherent" features recited in various claims necessarily flow from the teachings of the applied prior art. Accordingly, any rejection in the Final Office Action based on inherency is improper. In connection particularly with claim 1, it does not logically follow from the Examiner's statement

indicated above that Havel (or any other reference of record) inherently teaches the generation of composite radiation that simulates a desired spectrum generated by a predetermined light source.

E. Claim Rejections under 35 U.S.C. §103

In item 7 on page 10, claims 5-7, 10-12, 63 and 77 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over Havel. In item 12 on page 12, claims 72 and 73 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over Havel in view of McDermott (U.S. Patent No. 4,677,533). In item 16 on page 15, claims 81-96, 100-103, 105 and 108-110 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over Havel. In item 19 on page 16, claim 97 was rejected under 35 U.S.C. 103(a) as allegedly being obvious over Havel. In item 22 on page 16, claims 106 and 107 were rejected under 35 U.S.C. 103(a) as allegedly being obvious over Havel in view of McDermott. Applicants respectfully traverse these rejections. In any case, each of these rejections is believed to be moot, as the indicated claims depend from allowable base claims.

F. General Comments on Dependent Claims

Since each of the dependent claims depends from a base claim that is believed to be in condition for allowance, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicants do not necessarily concur with the interpretation of the dependent claims as set forth in the Office Action, nor do Applicants concur that the basis for the rejection of any of the dependent claims is proper. Therefore, Applicants reserve the right to specifically address the patentability of the dependent claims in the future, if deemed necessary.

G. Information Disclosure Statements and Consideration of Cited Art

Applicants noted during a review of the file history in preparing this response that all of the references cited in an Information Disclosure Statement dated August 15, 2005 have not been considered by the Examiner. In particular, the Examiner has crossed-through and not initialed six references listed in the "Other Documents" section of the Form-1449 accompanying the August 15, 2005 Information Disclosure Statement; however, to date, the Examiner has provided

no reason for failing to consider these references. Copies of these references were provided to the USPTO in connection with application Serial No. 09/716,819, to which the present application claims priority under 35 U.S.C. 120. Accordingly, consideration of these references respectfully is requested.

CONCLUSION

It is respectfully believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment set forth in the Office Action does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Furthermore, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify any concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' representative at the telephone number indicated below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

Dated: June 26, 2006

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